



U.S. Department  
of Transportation  
Pipeline and  
Hazardous Materials  
Safety Administration

IAEA CERTIFICATE OF COMPETENT AUTHORITY  
SPECIAL FORM RADIOACTIVE MATERIALS  
CERTIFICATE USA/0736/S-96, REVISION 0

400 Seventh Street, S.W.  
Washington, D.C. 20590

This certifies that the sources described have been demonstrated to meet the regulatory requirements for special form radioactive material as prescribed in the regulations of the International Atomic Energy Agency<sup>1</sup> and the United States of America<sup>2</sup> for the transport of radioactive material.

1. Source Identification - QSA Global, Inc. Models X2045 and X2045/1 (Manufactured on or after August 21, 1985).
2. Source Description - Cylindrical double encapsulations with a rectangular extension made of stainless steel and tungsten inert gas or laser seal welded. Approximate outer dimensions of the cylindrical sections are 17.0 mm (0.67 in.) in diameter and 12.4 mm (0.49 in.) in length. Approximate outer dimensions of the rectangular extensions are 38.0 mm (1.5 in.) in height, 19.0 mm (0.75 in.) in width, and 3.6 mm (0.14 in.) in depth. Minimum wall thickness of each encapsulation is 0.5 mm (0.02 in.). Construction shall be in accordance with attached AEA Technology QSA, Inc Drawing No. RBA61574, Rev. A.
3. Radioactive Contents - No more than 74.0 GBq (2.0 Ci) of Strontium-90. The Sr-90 is in the form of a ceramic enamel.
4. Quality Assurance - Records of Quality Assurance activities required by Paragraph 310 of the IAEA regulations<sup>1</sup> shall be maintained and made available to the authorized officials for at least three years after the last shipment authorized by this certificate. Consignors and consignees in the United States exporting or importing shipments under this certificate shall satisfy the requirements of Subpart H of 10 CFR 71.
5. Expiration Date - This certificate expires on July 31, 2011.

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<sup>1</sup> "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency(IAEA), Vienna, Austria.


<sup>2</sup> Title 49, Code of Federal Regulations, Parts 100-199, United States of America.

**CERTIFICATE USA/0736/S-96, REVISION 0**

This certificate is issued in accordance with paragraph 804 of the IAEA Regulations and Section 173.476 of Title 49 of the Code of Federal Regulations, in response to the April 24, 2006 petition by QSA Global, Inc., Burlington, MA and in consideration of other information on file in this Office.

Certified By:



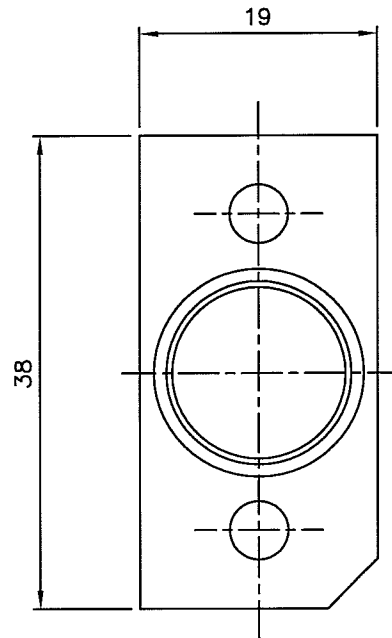
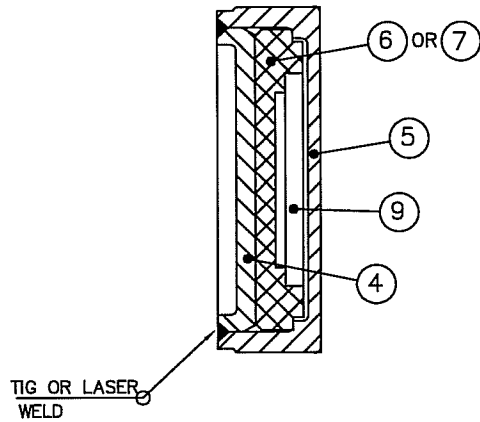
 Robert A. McGuire  
Associate Administrator for Hazardous Materials Safety

**Jul 05 2006**

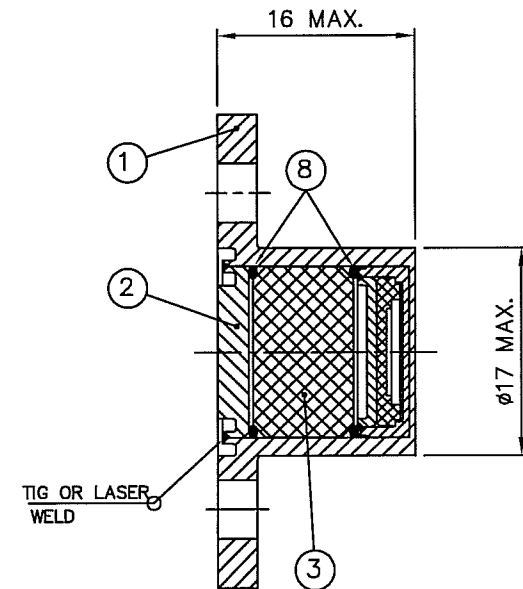
(DATE)

Revision 0 - Original issue.

CELL DETAIL  
SCALE 2:1



ITEM	DESCRIPTION		No off
1	SHEATH BODY	STAIN. STL.	1
2	SHEATH LID	STAIN. STL.	1
3	PLUG	TUNGSTEN	1
4	CELL LID	STAIN. STL.	1
5	CELL BODY	STAIN. STL.	1
6	INSERT (X2045)	STAIN. STL.	1
7	INSERT (X2045/1 & VZ-2529)	PLATINUM	1
8	PACKING RING	SILVER WIRE	2
9	ACTIVE MATERIAL		A/R



#### APPROVALS

*D. Pina*

17 Apr '06

*L. G. Chubb*

18 Apr 06

DIMENSIONS IN MILLIMETERS  
UNLESS OTHERWISE STATED TOLERANCES:

X ±0.5  
X.X ±0.12  
X.XX ±0.06  
ANGULAR ±5°

INTERNAL  $\nabla$ /  
EXTERNAL  $\nabla$



40 NORTH AVE, BURLINGTON, MA 01803

DESCRIPTIVE  
DRAWING

TITLE X2045 & X2045/1 (VZ-2529)  
CAPSULE ASSEMBLY

SIZE DWG. NO. RBA61574

SCALE: NONE SHEET 1 OF 1

ERF #

1334

REV

A